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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,938	05/23/2000	Andrew D. Dingsor	RSW9-2000-0036-US1	4490

7590 10/10/2003

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EXAMINER	
NGUYEN, THANH T	

ART UNIT	PAPER NUMBER
2143	4

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/575,938	DINGSOR ET AL.	
	Examiner	Art Unit	
	Tammy T Nguyen	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *July 15, 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 May 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

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Detailed Office Action

1. This action is responsive to the amendment filed on July 15, 2003.

2. Claims 1-30 and new claims 31-33 are pending.

Response to Arguments

3. Applicant's arguments filled on July 15, 2003 have been fully considered, however they are not persuasive because of the following reasons:

4. Applicants argue that Govett does not teach any queue that is comprised of plurality of other queue. In response to Applicant's argument, the Patent Office maintain the rejection because Govett does teach the wide queue is comprised of a plurality of queues as shown first request at col.6, lines 54-59 "when a request is the received, it is temporarily directed to request queue 310" and is also played in request 310 at col.7, lines 9-14 " a second request is received from the same or another client. The request is placed in the request queue 310" Those limitations created multiple requests from multiple clients as applicants claim invention. Clearly shown that the wide queue is comprised of a plurality of queues.

5. The combination of the primary reference and secondary reference does teach the limitation of identifying the host from which a client request was received.

6. Therefore, the Examiner asserts that cited prior arts teach or suggest the subject matter broadly recited in independent claims 1, 11, and 21. Claims 4-10, 31, 14-20, 32, and 24-30, 33 are also rejected at least by the virtue of their dependency on independent claims and by other reasons set forth in the previous office action [see paper no. 2]. Accordingly, claims 1-17 are respectfully rejected.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1,2,11,12,21, and 22, 31-33 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Ian Robert Govett., (USPN 5,761,507 – Date of Patent: June 02, 1998, herein referred to as "Govett")

9. As to claim 1, Govett teaches the invention as claimed, including a computer program

product for enhancing performance of a multithreaded application, said computer program product embodied on a computer-readable medium and comprising:

computer-readable program code means for executing a plurality of worker threads (col.13, lines 20-44, col.10, lines 25-49, col.12, lines 19-31, and col.10, line 62 to col.11, line 24);

computer-readable program code means for receiving onto an incoming queue a plurality of incoming client requests for connections (col.7, lines 9-50);

computer-readable program code means for transferring each of said received client requests for connections from said incoming queue to a wide queue (Fig.3, Request queue 310, and col.7, lines 9-50), said wide queue comprising a plurality of queues wherein each of said queues is separately synchronization-protected (col.11, lines 55-67, col.6, line 53 to col.7, line 39); and

computer-readable program code means for servicing, by said plurality of worker threads, said client requests by retrieving selected ones of said client requests from said wide queue (col.7, lines 29-67, and col.10, lines 24-37).

10. As to claim 2, Govett teaches the invention as claimed, wherein said computer-readable program code means for transferring further comprises:

computer-readable program code means for placing each of said received client requests on a selected one of said plurality of queues using a First-in, First-Out (FIFO) strategy (col.7, lines 29-50), wherein said selected one of said plurality of queue is selected using a round-robin approach (col.7, line 51 to col.8, line 37);

11. As to claim 31, Govett teaches the invention as claim, wherein computer-readable program code means for returning said retrieved selected ones of said client requests to said wide queue using said FIFO strategy and said round-robin approach upon completion of said computer-readable program code means for servicing (col. 12, lines 19-30, col.7, lines 29-50, and col.7, line 51 to col.8, line 37).

12. Claims 11, 12 and 21, 22, 32, 33 have similar limitations as claims 1, 2, and 31; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 3-10, 13-20, and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ian Robert Govett., (hereinafter Govett) U.S. Patent No. 5,761,508 in view of Patrick Michael LiVecchi., (hereinafter LiVecchi) U.S. Patent No. 6,427,161).

15. As to claim 3, Govett teaches the invention as claimed, including a computer program product for enhancing performance of a multithreaded application, said computer program product embodied on a computer-readable medium and comprising:

computer-readable program code means for executing a plurality of worker threads (col.13, lines 20-44, col.10, lines 25-49, col.12, lines 19-31, and col.10, line 62 to col.11, line 24);

computer-readable program code means for receiving a plurality of incoming client request onto a queue, wherein each of said client requests is for a connection with a host from which said client request was received (col.7, lines 9-50);

computer readable program code means for retrieving, by an individual one of said worker threads, a selected one of said client requests from said queue (Fig.4, 460, and col.6, lines 52-67);

computer-readable program code means for determining a number of connections to said host to which said connection is requested in said selected client request, wherein said number are those which are currently assigned to one or more of said worker threads (col.7, lines 9-50); and

Govett does not explicitly teach the computer-readable code means for processing said selected client request if said number is less than an upper limit, and for not processing said selected client request. However, LiVecchi teaches the computer-readable code means for processing said selected client request if said number is less than an upper limit, and for not processing means for processing said selected client request (col.14, lines 16-63, and col.18, line 63 to col.19, line10). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Govett and LiVecchi to have a selected client request number is less than upper limit because it would have an efficient system

that can provide specific point that must be exceeded to begin producing a given effect or result or to elicit a response.

16. As to claim 4, Govett does not teach the invention as claimed, wherein said upper limit is a system-wide value. However, LiVecchi teach the upper limit is a system –wide value (col.19, lines 15-42). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Govett and LiVecchi to have a system-wide value because it would utilization and convenient communications system that offers additional services, such as message routing, resource management, and conversion facilities, for computers communicating at different speeds.

17. As to claim 5, Govett teaches the invention as claimed, wherein said upper limit is a value specific to said host to which said connection is requested (col.12, lines11-50).

18. As to claim 6, Govett teaches the invention as claim, wherein said value is dynamically computed, and further comprising: computer-readable program code means for executing a supervisor thread (col.6, lines 10-50, and col.9, line 50 to col.10, line 7);

computer-readable code means for monitoring, by said supervisor thread, whether connections to each of said hosts succeed or fail; and computer-readable program code means for decrementing said value when said connections to said host fail (col.10, lines 37-62, and col.12, lines 19-50).

19. As to claim 7, Govett teaches the invention as claimed, further comprising:

computer-readable code means for incrementing said value when said connections to said host succeed (col.10, lines 8-62).

20. As to claim 8, Govett teaches the invention as claimed, wherein said computer-readable

program code means for monitoring further comprise:

computer-readable program code means for setting, by each of said worker threads, and thread time stamp when said worker thread performs active work (col.14, lines 30-40);

computer-readable program code means for comparing, by said supervisor thread, said thread time stamp for each of said worker threads to a system time, thereby computing an elapsed time for said worker thread (col.6, lines 9-52); and

computer-program code means for deactivating said worker thread if said elapsed time exceeds a maximum allowable time (col.6, lines 10-36).

21. As to claim 9, Govett teaches the invention as claimed, further comprising:

computer-readable program code means for providing information for each of said hosts, said information comprising an address for said host and a plurality of in-use flags (col.7, lines 9-50);

computer-readable program code means for setting a selected one of said in-use flags when a particular worker thread is processing work on said connection to a particular host, wherein said selected one of said in-use flags is associated with said particular worker thread (col.7, lines 9-50); and

computer-readable program code means for resetting said selected one of said in –use flags when said particular worker thread stops processing work on said connection to said particular host (col.7, lines 9-50); and

wherein said computer-readable program code means for determining said number of currently-assigned connection further comprises computer-readable program code means for counting how many said in-use flags are set (col.3, lines 1-15).

22. As to claim10, Govett teaches the invention as claimed, wherein said queue is a wide queue comprised of a plurality of First-In, First-Out (FIFO) queues (col.7, line 29-50).

23. Claims 13-20, and 23-30 have similar limitations as claims 3-10; therefore, they are rejected under the same rationale.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

26. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(703) 305-7982**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 4:30 p.m. eastern standard time. If you need to send the Examiner, a facsimile transmission

regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **David Wiley**, may be reached at **(703) 308-5221**.

TTN

October 2nd, 2003.

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100